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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/018,753	12/21/2001	Hiroshi Kano	0649-0815P	2640
2292	7590	01/23/2004		
BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			EXAMINER YOON, TAE H	
			ART UNIT	PAPER NUMBER
			1714	

DATE MAILED: 01/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.	Applicant(s)	
10/018,753	KAMO, HIROSHI	
Examiner	Art Unit	
Tae H Yoon	1714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-945)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No.(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No.(s) ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1 and 9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Improper Markush language is recited and an insertion of "the group consisting of" after "selected from" is suggested.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3-7 and 10-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over van der Meer et al (US 4,888,397), Jalbert et al (US 4,654,405) or WO 87/00540 in view of Furuta et al (US 5,278,254 or 5,498,689).

Van der Meer et al teach a blend of functionalized polyphenylene ether (PPE) and polyamides or polyesters in abstract. Maleic anhydride modified PPE is taught in table 1. Jalbert et al teach the same in abstract and table 1. Jalbert et al teach employing other additives such as fillers or lubricants at col. 4, lines 25-38. WO teach the same in claims and examples.

The instant invention further recites a liquid-crystal polyester over van der Meer et al, WO and Jalbert et al. However, blends of a liquid-crystal polyester and a functionalized polyphenylene ether are well known as taught by Furuta et al (abstract).

With respect to the reaction temperature for obtaining the functionalized polyphenylene ether, an invention in a product-by-process claim is a product, not a process. See In re Brown, 459 F2d 531, 173 USPQ 685 (CCPA 1972) and In re Thorpe, 777 F2d 695, 697, 227 USPQ 964 (Fed. Cir. 1985).

It would have been obvious to one skilled in the art at the time of invention to utilize a liquid-crystal polyester of Furuta et al in van der Meer et al, WO or Jalbert et al in order to obtain blends of maleic anhydride modified PPE and a liquid-crystal polyester since blends of a liquid-crystal polyester and a functionalized polyphenylene ether are well known and since the maleic anhydride modified PPE would be expected to act in a similar manner in said liquid-crystal polyester blend.

Claims 1 and 3-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over van der Meer et al (US 4,888,397), Jalbert et al (US 4,654,405) or WO 87/00540 in view of Furuta et al (US 5,278,254 or 5,498,689), and further in view of Newman et al (US 5,990,256).

The instant invention further recites metallic compounds such as zinc stearate. However, said zinc stearate is the art well known lubricant as taught by Newman et al, col. 3, line 45.

It would have been obvious to one skilled in the art at the time of invention to utilize zinc stearate of Newman et al in van der Meer et al, WO or Jalbert et al and Furuta et al thereof since the use of lubricants in order to improve mold processing is a routine practice in the art and since said zinc stearate is one the art well known lubricants.

Claims 1-7 and 10-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over van der Meer et al (US 4,888,397), Jalbert et al (US 4,654,405) or WO 87/00540 in view of Furuta et al (US 5,278,254 or 5,498,689), and further in view of WO 99/02607.

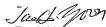
The instant invention further recites particle sizes of a functionalized polyphenylene ether in the blend. However, it is well known in the art that PPE forms particles having such particle sizes in blend with a liquid-crystal polyester as taught by WO 99, page 2.

Thus, it would be obvious to one skilled in the art at the time of invention to utilize a liquid-crystal polyester of Furuta et al in van der Meer et al, WO 87 or Jalbert et al in order to obtain blends of maleic anhydride modified PPE and a liquid-crystal polyester since blends of a liquid-crystal polyester and a functionalized polyphenylene ether are well known and since the maleic anhydride modified PPE would be expected to act in a similar manner in said liquid-crystal polyester blend, and said maleic anhydride modified PPE would form particles having the instant particle sizes as taught by WO 99.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tae H Yoon whose telephone number is (571) 272-1128. The examiner can normally be reached on Mon-Thu.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.


Tae H Yoon
Primary Examiner
Art Unit 1714

THY/January 15, 2004